

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/646,785A

DATE: 08/07/2002 TIME: 13:03:05

Input Set : A:\soei5042us.txt

Output Set: N:\CRF4\08072002\1646785A.raw

```
4 <110> APPLICANT: KISHIMOTO, Tadamitsu
 5
         NAGASAWA, Takashi
 6
         TACHIBANA, Kazunobu
         CHUGAI SEIYAKU KABUSIKI KAISHA
 9 <120> TITLE OF INVENTION: Vascularization Inhibitors
11 <130> FILE REFERENCE: 46124-5042-US
13 <140> CURRENT APPLICATION NUMBER: US 09/646,785A
14 <141> CURRENT FILING DATE: 2001-02-16
16 <150> PRIOR APPLICATION NUMBER: PCT/JP99/01448
17 <151> PRIOR FILING DATE: 1999-03-23
19 <150> PRIOR APPLICATION NUMBER: JP10/95448
20 <151> PRIOR FILING DATE: 1998-03-24
22 <160> NUMBER OF SEQ ID NOS: 12
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 352
26 <212> TYPE: PRT
27 <213> ORGANISM: Mus
29 <400> SEQUENCE: 1
30 Met Glu Gly Ile Ser Ile Tyr Thr Ser Asp Asn Tyr Thr Glu Glu
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32 Met Gly Ser Gly Asp Tyr Asp Ser Met Lys Glu Pro Cys Phe Arg
                  . 20
                                         25
34 Glu Glu Asn Ala Asn Phe Asn Lys Ile Phe Leu Pro Thr Ile Tyr
                                         40
36 Ser Ile Ile Phe Leu Thr Gly Ile Val Gly Asn Gly Leu Val Ile
                    50
37
38 Leu Val Met Gly Tyr Gln Lys Lys Leu Arg Ser Met Thr Asp Lys
39
                    65
40 Tyr Arg Leu His Leu Ser Val Ala Asp Leu Leu Phe Val Ile Thr
                    80
                                        85
42 Leu Pro Phe Trp Ala Val Asp Ala Val Ala Asn Trp Tyr Phe Gly
                    95
                                       100
43
44 Asn Phe Leu Cys Lys Ala Val His Val Ile Tyr Thr Val Asn Leu
                   110
                                       115
46 Tyr Ser Ser Val Leu Ile Leu Ala Phe Ile Ser Leu Asp Arg Tyr
                                                            135
                   125
                                       130
47
48 Leu Ala Ile Val His Ala Thr Asn Ser Gln Arg Pro Arg Lys Leu
                                        145
49
50 Leu Ala Glu Lys Val Val Tyr Val Gly Val Trp Ile Pro Ala Leu
51
                   155
                                        160
52 Leu Leu Thr Ile Pro Asp Phe Ile Phe Ala Asn Val Ser Glu Ala
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175

54 Asp Asp Arg Tyr Ile Cys Asp Arg Phe Tyr Pro Asn Asp Leu Trp

## ENTERED

## RECEIVED

170

53

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                   185
55
56 Val Val Val Phe Gln Phe Gln His Ile Met Val Gly Leu Ile Leu
                   200
                                        205
58 Pro Gly Ile Val Ile Leu Ser Cys Tyr Cys Ile Ile Ile Ser Lys
                                        220
                   215
60 Leu Ser His Ser Lys Gly His Gln Lys Arg Lys Ala Leu Lys Thr
                                        235
                   230
62 Thr Val Ile Leu Ile Leu Ala Phe Phe Ala Cys Trp Leu Pro Tyr
                                        250
                                                            255
                   245
64 Tyr Ile Gly Ile Ser Ile Asp Ser Phe Ile Leu Leu Glu Ile Ile
                   260
66 Lys Gln Gly Cys Glu Phe Glu Asn Thr Val His Lys Trp Ile Ser
68 Ile Thr Glu Ala Leu Ala Phe Phe His Cys Cys Leu Asn Pro Ile
                   290
                                        295
70 Leu Tyr Ala Phe Leu Gly Ala Lys Phe Lys Thr Ser Ala Gln His
                   305
                                        310
72 Ala Leu Thr Ser Val Ser Arg Gly Ser Ser Leu Lys Ile Leu Ser
                                        325
                   320
74 Lys Gly Lys Arg Gly Gly His Ser Ser Val Ser Thr Glu Ser Glu
                   335
                                        340
76 Ser Ser Ser Phe His Ser Ser
                   350
77
80 <210> SEQ ID NO: 2
81 <211> LENGTH: 1588
82 <212> TYPE: DNA
83 <213> ORGANISM: Mus
85 <220> FEATURE:
86 <221> NAME/KEY: CDS
87 <222> LOCATION: (1)...(1059)
89 <400> SEQUENCE: 2
90 atg gag ggg atc agt ata tac act tca gat aac tac acc gag gaa 45
91 atg ggc tca ggg gac tat gac tcc atg aag gaa ccc tgt ttc cgt 90
92 gaa gaa aat gct aat ttc aat aaa atc ttc ctg ccc acc atc tac 135
93 tcc atc atc ttc tta act ggc att gtg ggc aat gga ttg gtc atc 180
94 ctg gtc atg ggt tac cag aag aaa ctg aga agc atg acg gac aag 225
95 tac agg ctg cac ctg tca gtg gcc gac ctc ctc ttt gtc atc acg 270
96 ctt ccc ttc tgg gca gtt gat gcc gtg gca aac tgg tac ttt ggg 315
97 aac ttc cta tgc aag gca gtc cat gtc atc tac aca gtc aac ctc 360
98 tac agc agt gtc ctc atc ctg gcc ttc atc agt ctg gac cgc tac 405
99 ctg gcc atc gtc cac gcc acc aac agt cag agg cca agg aag ctg 450
100 ttg gct gaa aag gtg gtc tat gtt ggc gtc tgg atc cct gcc ctc 495
101 ctg ctg act att ccc gac ttc atc ttt gcc aac gtc agt gag gca 540
102 gat gac aga tat atc tgt gac cgc ttc tac ccc aat gac ttg tgg 585
103 gtg gtt gtg ttc cag ttt cag cac atc atg gtt ggc ctt atc ctg 630
104 cct ggt att gtc atc ctg tcc tgc tat tgc att atc atc tcc aag 675
105 ctg tca cac tcc aag ggc cac cag aag cgc aag gcc ctc aag acc 720
106 aca gtc atc ctc atc ctg gct ttc ttc gcc tgt tgg ctg cct tac 765
107 tac att ggg atc agc atc gac tcc ttc atc ctc ctg gaa atc atc 810
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108 aag caa ggg tgt gag ttt gag aac act gtg cac aag tgg att tcc 855 109 atc acc gag gcc cta gct ttc ttc cac tgt tgt ctg aac ccc atc 900 110 ctc tat gct ttc ctt gga gcc aaa ttt aaa acc tct gcc cag cac 945 111 gca ctc acc tct gtg agc aga ggg tcc agc ctc aag atc ctc tcc 990 112 aaa gga aag cga ggt gga cat tca tct gtt tcc act gag tct gag 1035 113 tct tca agt ttt cac tcc agc taa cacagatgta aaagactttt ttttat 1085 114 acqataaata acttttttt aagttacaca tttttcagat ataaaagact gaccaatatt 1145 115 gtacagtttt tattgcttgt tggatttttg tcttgtgttt ctttagtttt tgtgaagttt 1205 116 aattgactta titatataaa tittittigi ticatatiga tgigtgicta ggcaggacci 1265 117 gtqqccaaqt tcttaqttqc tgtatqtctc gtgqtaggac tgtagaaaag ggaactgaac 1325 118 attccagage gtgtagttaa teaegtaaag etagaaatga teeceagetg tttatgeata 1385 119 gataatotot coattooogt ggaacgtttt tootgttott aagacgtgat tittgotgtag 1445 120 aagatggcac ttataaccaa agcccaaagt ggtatagaaa tgctggtttt tcagttttca 1505 121 ggagtgggtt gatttcagca cctacagtgt acagtcttgt attaagttgt taataaaagt 1565 122 acatgttaaa cttaaaaaaa aaa 125 <210> SEQ ID NO: 3 126 <211> LENGTH: 359 127 <212> TYPE: PRT 128 <213> ORGANISM: Mus 130 <400> SEQUENCE: 3 131 Met Glu Pro Ile Ser Val Ser Ile Tyr Thr Ser Asp Asn Tyr Ser 5 10 133 Glu Glu Val Gly Ser Gly Asp Tyr Asp Ser Asn Lys Glu Pro Cys 134 135 Phe Arg Asp Glu Asn Val His Phe Asn Arg Ile Phe Leu Pro Thr 136 137 Ile Tyr Phe Ile Ile Phe Leu Thr Gly Ile Val Gly Asn Gly Leu 55 50 138 139 Val Ile Leu Val Met Gly Tyr Gln Lys Lys Leu Arg Ser Met Thr 70 141 Asp Lys Tyr Arg Leu His Leu Ser Val Ala Asp Leu Leu Phe Val 85 80 142 143 Ile Thr Leu Pro Phe Trp Ala Val Asp Ala Met Ala Asp Trp Tyr 105 95 100 144 145 Phe Gly Lys Phe Leu Cys Lys Ala Val His Ile Ile Tyr Thr Val 120 115 110 147 Asn Leu Tyr Ser Ser Val Leu Ile Leu Ala Phe Ile Ser Leu Asp 130 125 148 149 Arg Tyr Leu Ala Ile Val His Ala Thr Asn Ser Gln Arg Pro Arg 150 150 145 151 Lys Leu Leu Ala Glu Lys Ala Val Tyr Val Gly Val Trp Ile Pro 152 155 160 153 Ala Leu Leu Leu Thr Ile Pro Asp Phe Ile Phe Ala Asp Val Ser 175 170 155 Gln Gly Asp Ile Ser Gln Gly Asp Asp Arg Tyr Ile Cys Asp Arg 190 156 185 157 Leu Tyr Pro Asp Ser Leu Trp Met Val Val Phe Gln Phe Gln His 200 205 159 Ile Met Val Gly Leu Ile Leu Pro Gly Ile Val Ile Leu Ser Cys

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```
220
                                                              225
                     215
 160
 161 Tyr Cys Ile Ile Ile Ser Lys Leu Ser His Ser Lys Gly His Gln
                     230
                                         235
 163 Lys Arg Lys Ala Leu Lys Thr Thr Val Ile Leu Ile Leu Ala Phe
                                         250
 164
                     245
 165 Phe Ala Cys Trp Leu Pro Tyr Tyr Val Gly Ile Ser Ile Asp Ser
                                                              270
 166
                     260
                                         265
 167 Phe Ile Leu Cly Val Ile Lys Gln Gly Cys Asp Phe Glu Ser
                     275
                                         280
 169 Ile Val His Lys Trp Ile Ser Ile Thr Glu Ala Leu Ala Phe Phe
                     290
                                         295
 170
 171 His Cys Cys Leu Asn Pro Ile Leu Tyr Ala Phe Leu Gly Ala Lys
 172
                     305
                                                              315
 173 Phe Lys Ser Ser Ala Gln His Ala Leu Asn Ser Met Ser Arg Gly
                                                              330
 174
                     320
                                         325
 175 Ser Ser Leu Lys Ile Leu Ser Lys Gly Lys Arg Gly Gly His Ser
                     335
                                         340
 177 Ser Val Ser Thr Glu Ser Glu Ser Ser Phe His Ser Ser
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 178
                     350
 181 <210> SEQ ID NO: 4
 182 <211> LENGTH: 1758
 183 <212> TYPE: DNA
 184 <213> ORGANISM: Mus
 186 <220> FEATURE:
 187 <221> NAME/KEY: CDS
 188 <222> LOCATION: (1)...(1080)
 189 <223> OTHER INFORMATION:
 191 <400> SEQUENCE: 4
 192 atg gaa ccg atc agt gtg agt ata tac act tct gat aac tac tct 45
 193 gaa gaa gtg ggg tct gga gac tat gac tcc aac aag gaa ccc tgc 90
 194 ttc cgg gat gaa aac gtc cat ttc aat agg atc ttc ctg ccc acc 135
 195 atc tac ttc atc atc ttc ttg act ggc ata gtc ggc aat gga ttg 180
 196 gtg atc ctg gtc atg ggt tac cag aag aag cta agg agc atg acg 225
 197 gac aag tac egg etg cac etg tea gtg get gac etc etc ttt gte 270
, 198 atc aca etc eec tte tgg gea gtt gat gee atg get gae tgg tae 315
 199 ttt ggg aaa ttt ttg tgt aag gct gtc cat atc atc tac act gtc 360
 200 aac etc tac age age qtt etc atc etg gee ttc atc age etg gae 405
 201 cgg tac ctc gcc att gtc cac gcc acc aac agt caa agg cca agg 450
 202 aaa ctg ctg gct gaa aag gca gtc tat gtg ggc gtc tgg atc cca 495
 203 gcc ctc ctc ctq act ata cct gac ttc atc ttt gcc gac gtc agc 540
 204 cag ggg gac atc agt cag ggg gat gac agg tac atc tgt gac cgc 585
 205 ctt tac ccc gat agc ctg tgg atg gtg ttt caa ttc cag cat 630
 206 ata atg gtg ggt ctc atc ctg ccc ggc atc gtc atc ctc tcc tgt 675
 207 tac tgc atc atc tct aag ctg tca cac tcc aag ggc cac cag 720
 208 aag cgc aag gcc ctc aag acg aca gtc atc ctc atc cta gct ttc 765
 209 ttt gcc tgc tgg ctg cca tat tat gtg ggg atc agc atc gac tcc 810
 210 ttc atc ctt ttg gga gtc atc aag caa gga tgt gac ttc gag agc 855
 211 att gtg cac aag tgg atc tcc atc aca gag gcc ctc gcc ttc ttc 900
 212 cac tgt tgc ctg aac ccc atc ctc tat gcc ttc ctc ggg gcc aag 945
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```
213 ttc aaa agc tct gcc cag cat gca ctc aac tcc atg agc aga ggc 990
214 tee age etc aag ate ett tee aaa gga aag egg ggt gga eac tet 1035
215 tee qte tee aeg qag tea gaa tee tee agt tit eac tee age taa 1080
216 cccttatgca aagacttata taatatatat atatatatga taaagaactt ttttatgtta 1140
218 actqttqqqa qtttatqttc ctctagtttt tgtgaggttt gacttaattt atataaatat 1260
219 tgttttttgt ttgtttcatg tgaatgageg tctaggeagg acctgtggec aagttettag 1320
220 tagctgttta tctgtgtgta ggactgtaga actgtagagg aagaaactga acattccaga 1380
221 atqtqtqqta aattqaataa aqctaqccqt qatcctcaqc tqttqctqca taatctcttc 1440
222 attccgagga gcaccccacc cccacccca ccccacccc attcttaaat tgtttggtta 1500
224 aaqatqqcac ttaaaaccaa agcctgaaat ggtggtagaa atgctggggt ttttttttgtt 1620
225 tgtttgtttt ttcagttttc aagagtagat tgacttcagt ccctacaaat gtacagtctt 1680
227 aaaaaaaaaa aaaaaaaa
230 <210> SEQ ID NO: 5
231 <211> LENGTH: 89
232 <212> TYPE: PRT
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
236 <223> OTHER INFORMATION: Ligand peptide
238 <400> SEQUENCE: 5
239 Met Asn Ala Lys Val Val Val Leu Val Leu Val Leu Thr Ala
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240
241 Leu Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys
                                                        30
242
                   20
243 Pro Cys Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys
                                                        45
                   35
                                     40
245 His Leu Lys Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val
                   50
                                     55
246
247 Ala Arg Leu Lys Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys
                                                        75
248
                   65
                                     70
249 Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn Lys
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253 <210> SEQ ID NO: 6
254 <211> LENGTH: 2244
255 <212> TYPE: DNA
256 <213> ORGANISM: Mus
258 <220> FEATURE:
259 <221> NAME/KEY: CDS
260 <222> LOCATION: (471)...(743)
262 <400> SEQUENCE: 6
263 gcacgggaca ggccgggcca cacccaccgg ggcgagctcg gagggcggcg ctctgggcgg 60
264 agggcccggc ggctcggccc agggcgcgtt acctcgtcgc cggggccgga gagggcgggc 120
265 ggaggcacgg ggcctggagg cgccaggcgg aggatgcggg cgacacggtg gcggcggcga 180
266 ccqcqcqacc qgqcgqgcqg qcgqgcaggq qcgagcqgag ggagggagcg gactgcggca 240
267 ggatctgtcg aggaaaaatc ttgcggccgg cgattccccg ccttttaagc gcagcctgca 300
268 etececeae eccaegeagg ggegggeett ecceaaegeg ggegeeeaet ggeegeegeg 360
269 egeogetece etecageteg cetgegeete teacteteeg teageogeat tgeoegeteg 420
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/646,785A

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